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I. BACKGROUND

Plaintiff brings suit alleging infringement of United States Patent Nos. 6,789,228 (“the ‘228 patent”), 7,689,898 (“the ‘898 patent”), and 8,286,070 (“the ‘070 patent”) (collectively, the “Asserted Patents”). Plaintiff has asserted that claims 1, 5, 6, 7, 8, 11, 16, 17, and 18 of the ‘228 patent, claims 26, 27, 29, 34, 38, 40, 41, and 44 of the ‘898 patent, and claims 1-5, 9, 10, 13, 17, 21, 24, 29, and 30-33 of the ‘070 patent are infringed by products and services of the Defendant. (Dkt. No. 47 at 8, 16, 21.)

The application leading to the ‘228 patent was filed on May 7, 1998. The ‘228 patent issued on September 7, 2004 and is entitled “Method and System for the Storage and Retrieval of Web-Based Education Materials.” The ‘898 patent issued from a continuation-in-part application related to the ‘228 patent and was filed on October 13, 2006 and issued on March 30, 2010. The ‘898 patent is entitled “Enhanced Capture, Management and Distribution of Live Presentations.” The ‘070 patent issued from a continuation of the application leading to the ‘898 patent and was filed on March 29, 2010 and issued on October 9, 2012. The ‘070 Patent is entitled “Enhanced Capture, Management and Distribution of Live Presentations.”

The ‘898 patent and ‘070 patent have substantially similar specifications, but they include 18 additional figures and numerous pages of additional written disclosure over the specification found in the parent ‘228 patent. (*See* Asserted Patents; *see also* Dkt. No. 50 at 1.) The Plaintiff is claiming priority of the claims in the ‘898 patent and ‘070 patent to the filing date of the ‘228 patent. (*See* Plaintiff’s P.R. 3-1 Disclosures at 6 (Exh. B to Dkt. No. 50).)

In general, the Asserted Patents are directed to a data processing system for digitally recording lectures and presentations and more particularly to the capture, management, and distribution of these lectures and presentations.

The Abstract of the '228 patent states:

A system is provided that automatically digitally captures lecture presentation slides and speech and stores the data in a memory. This system also prepares this information for Internet publication and publishes it on the Internet for distribution to end-users. The system generally comprises three main functions: (1) capturing the lecture and storing it into a computer memory or database, (2) generating a transcript from the lecture and the presentation slides and automatically summarizing and outlining the transcripts, and (3) publishing the lecture slides image data, audio data, and transcripts on the Internet for use by client computers. The system synchronizes the slide image data, audio data and the transcripts, and the clients can view and search the published lecture presentation from a slide image projector to a digital camera for digital image data capture.

Asserted claim 1 of the '228 patent is shown below:

1. A method of capturing a live presentation, comprising the steps of:

capturing still images from a display device which displays said still images for viewing by an audience during a live presentation;

during the live presentation, detecting the change over from one still image to another;

recording the audio portion of a speaker's presentation during a live presentation; and

in response to said detected change over from one still image to another, automatically synchronizing change over from one still image to another with the audio recording.

The Abstract of the '898 patent states:

Techniques are provided for converting live presentations into electronic media and managing captured media assets for distribution. An exemplary system includes capture devices that capture media assets of live presentations comprising a session, including image data of sequentially presented visual aids accompanying the live presentations and audio data. Each capture device has an interface for real-time image data marking of the image data for identification of individual images and session marking of the image data for demarcation of individual presentations of the session. A centralized device processes the captured media assets and automatically divides the captured media assets into discrete files associated with the individual presentations based on the session markings. An administrative tool manages the processed media assets to produce

modified presentations and enables modification of the visual aid images identified by the image data markings. A production device formats the modified presentations for distribution on distribution media.

Asserted claim 26 of the '898 patent is shown below:

26. A method for capturing and distributing presentations, comprising:

capturing media assets of live presentations comprising a session, the media assets including 1) image data of a plurality of sequentially presented visual aids accompanying the live presentations and 2) audio data, wherein at least two of the visual aids are selected from the group of images consisting of slides, photographs, graphs, discrete motion picture clips, and text, and wherein the capturing includes real-time 1) image data marking of the image data for identification of individual images and 2) session marking of the image data for demarcation of individual presentations of the session;

processing the captured media assets for the session, wherein the processing includes automatically dividing the captured media assets for the session into discrete files associated with the individual presentations based on the session markings;

managing the processed captured media assets to produce modified presentations, wherein the managing includes modifying the visual aid images identified by the image data markings; and

formatting the modified presentations of at least one session for distribution on distribution media.

II. LEGAL PRINCIPLES

A. Claim Construction

It is understood that “[a] claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention.” *Burke, Inc. v. Bruno Indep. Living Aids, Inc.*, 183 F.3d 1334, 1340 (Fed. Cir. 1999). Claim construction is clearly an issue of law for the court to decide. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 970-71 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996).

To ascertain the meaning of claims, courts look to three primary sources: the claims, the specification, and the prosecution history. *Markman*, 52 F.3d at 979. The specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. *Id.* A patent's claims must be read in view of the specification, of which they are a part. *Id.* For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id.* "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." *Watts v. XL Sys., Inc.*, 232 F.3d 877, 882 (Fed. Cir. 2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's invention. Otherwise, there would be no need for claims. *SRI Int'l v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1121 (Fed. Cir. 1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. *Intellicall, Inc. v. Phonometrics, Inc.*, 952 F.2d 1384, 1388 (Fed. Cir. 1992). Although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. *Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc.*, 34 F.3d 1048, 1054 (Fed. Cir. 1994).

This Court's claim construction analysis is substantially guided by the Federal Circuit's decision in *Phillips v. AWH Corporation*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). In *Phillips*, the court set forth several guideposts that courts should follow when construing claims. In particular, the court reiterated that "the claims of a patent define the invention to which the patentee is entitled the right to exclude." 415 F.3d at 1312 (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)). To that end, the words

used in a claim are generally given their ordinary and customary meaning. *Id.* The ordinary and customary meaning of a claim term “is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.” *Id.* at 1313. This principle of patent law flows naturally from the recognition that inventors are usually persons who are skilled in the field of the invention and that patents are addressed to, and intended to be read by, others skilled in the particular art. *Id.*

Despite the importance of claim terms, *Phillips* made clear that “the person of ordinary skill in the art is deemed to read the claim term not only in the context of the particular claim in which the disputed term appears, but in the context of the entire patent, including the specification.” *Id.* Although the claims themselves may provide guidance as to the meaning of particular terms, those terms are part of “a fully integrated written instrument.” *Id.* at 1315 (quoting *Markman*, 52 F.3d at 978). Thus, the *Phillips* court emphasized the specification as being the primary basis for construing the claims. *Id.* at 1314-17. As the Supreme Court stated long ago, “in case of doubt or ambiguity it is proper in all cases to refer back to the descriptive portions of the specification to aid in solving the doubt or in ascertaining the true intent and meaning of the language employed in the claims.” *Bates v. Coe*, 98 U.S. 31, 38 (1878). In addressing the role of the specification, the *Phillips* court quoted with approval its earlier observations from *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998):

Ultimately, the interpretation to be given a term can only be determined and confirmed with a full understanding of what the inventors actually invented and intended to envelop with the claim. The construction that stays true to the claim language and most naturally aligns with the patent’s description of the invention will be, in the end, the correct construction.

Phillips, 415 F.3d at 1316. Consequently, *Phillips* emphasized the important role the specification plays in the claim construction process.

The prosecution history also continues to play an important role in claim interpretation. Like the specification, the prosecution history helps to demonstrate how the inventor and the PTO understood the patent. *Id.* at 1317. Because the file history, however, “represents an ongoing negotiation between the PTO and the applicant,” it may lack the clarity of the specification and thus be less useful in claim construction proceedings. *Id.* Nevertheless, the prosecution history is intrinsic evidence that is relevant to the determination of how the inventor understood the invention and whether the inventor limited the invention during prosecution by narrowing the scope of the claims. *Id.*; see *Microsoft Corp. v. Multi-Tech Sys., Inc.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (noting that “a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation”).

Phillips rejected any claim construction approach that sacrificed the intrinsic record in favor of extrinsic evidence, such as dictionary definitions or expert testimony. The *en banc* court condemned the suggestion made by *Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193 (Fed. Cir. 2002), that a court should discern the ordinary meaning of the claim terms (through dictionaries or otherwise) before resorting to the specification for certain limited purposes. *Phillips*, 415 F.3d at 1319-24. According to *Phillips*, reliance on dictionary definitions at the expense of the specification had the effect of “focus[ing] the inquiry on the abstract meaning of words rather than on the meaning of claim terms within the context of the patent.” *Id.* at 1321. *Phillips* emphasized that the patent system is based on the proposition that the claims cover only the invented subject matter. *Id.*

Phillips does not preclude all uses of dictionaries in claim construction proceedings. Instead, the court assigned dictionaries a role subordinate to the intrinsic record. In doing so, the court emphasized that claim construction issues are not resolved by any magic formula. The court did not impose any particular sequence of steps for a court to follow when it considers disputed claim language. *Id.* at 1323-25. Rather, *Phillips* held that a court must attach the appropriate weight to the intrinsic sources offered in support of a proposed claim construction, bearing in mind the general rule that the claims measure the scope of the patent grant.

Indefiniteness is a “legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Exxon Research & Eng’g Co. v. United States*, 265 F.3d 1371, 1376 (Fed. Cir. 2001) (citation omitted). A finding of indefiniteness must overcome the statutory presumption of validity. *See* 35 U.S.C. § 282. That is, the “standard [for finding indefiniteness] is met where an accused infringer shows by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area.” *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008).

In determining whether that standard is met, i.e., whether the claims at issue are sufficiently precise to permit a potential competitor to determine whether or not he is infringing, we have not held that a claim is indefinite merely because it poses a difficult issue of claim construction. We engage in claim construction every day, and cases frequently present close questions of claim construction on which expert witnesses, trial courts, and even the judges of this court may disagree. Under a broad concept of indefiniteness, all but the clearest claim construction issues could be regarded as giving rise to invalidating indefiniteness in the claims at issue. But we have not adopted that approach to the law of indefiniteness. We have not insisted that claims be plain on their face in order to avoid condemnation for indefiniteness; rather, what we have asked is that the claims be amenable to construction, however difficult that task may be. If a claim is insolubly ambiguous, and no narrowing construction can properly be adopted, we have held the claim indefinite. If the meaning of the claim is discernible, even though the task may be formidable and the conclusion may be one over which

reasonable persons will disagree, we have held the claim sufficiently clear to avoid invalidity on indefiniteness grounds. . . . By finding claims indefinite only if reasonable efforts at claim construction prove futile, we accord respect to the statutory presumption of patent validity . . . and we protect the inventive contribution of patentees, even when the drafting of their patents has been less than ideal.

Exxon, 265 F.3d at 1375 (citations and internal quotation marks omitted).

B. Means-Plus-Function Limitations

Where a claim limitation is expressed in “means plus function” language and does not recite definite structure in support of its function, the limitation is subject to 35 U.S.C. § 112, ¶ 6. *Braun Med., Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997). In relevant part, 35 U.S.C. § 112, ¶ 6 mandates that “such a claim limitation ‘be construed to cover the corresponding structure . . . described in the specification and equivalents thereof.’” *Id.* (citing 35 U.S.C. § 112, ¶ 6). Accordingly, when faced with means-plus-function limitations, courts “must turn to the written description of the patent to find the structure that corresponds to the means recited in the [limitations].” *Id.*

Construing a means-plus-function limitation involves multiple steps. “The first step in construing [a means-plus-function] limitation is a determination of the function of the means-plus-function limitation.” *Medtronic, Inc. v. Advanced Cardiovascular Sys., Inc.*, 248 F.3d 1303, 1311 (Fed. Cir. 2001). Once a court has determined the limitation’s function, “the next step is to determine the corresponding structure disclosed in the specification and equivalents thereof.” *Id.* A “structure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim.” *Id.* Moreover, the focus of the “corresponding structure” inquiry is not merely whether a

structure is capable of performing the recited function, but rather whether the corresponding structure is “clearly linked or associated with the [recited] function.” *Id.*

“While corresponding structure need not include all things necessary to enable the claimed invention to work, it must include all structure that actually performs the recited function.” *Default Proof Credit Card System, Inc. v. Home Depot U.S.A., Inc.*, 412 F.3d 1291, 1298 (Fed. Cir. 2005). “The question is not whether one of skill in the art would be capable of implementing a structure to perform the function, but whether that person would understand the written description itself to disclose such a structure.” *Tech. Licensing Corp. v. Videotek, Inc.*, 545 F.3d 1316, 1338 (Fed. Cir. 2008). Further, the identified structure needs to be more than a “black box.” *See Blackboard, Inc. v. Desire2Learn Inc.*, 574 F.3d 1371, 1382-83 (Fed. Cir. 2009). The structure needs to be described in detail and not abstraction. *See id.*

Where computer-implemented inventions are at issue and claimed using means-plus-function limitations, the Federal Circuit “has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor.” *Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech.*, 521 F.3d 1328, 1333 (Fed. Cir. 2008). Rather, the patent must disclose sufficient algorithmic structure (or some other description) explaining how the computer performs the claimed function. *See id.* at 1332-37; *Blackboard*, 574 F.3d at 1383-84; *Finisar Corp. v. DirecTV Group, Inc.*, 523 F.3d 1323, 1340 (Fed. Cir. 2008). The term “algorithm” in computer systems has broad meaning and encompasses “in essence a series of instructions for the computer to follow,” *In re Waldbaum*, 457 F.2d 997, 998 (CCPA 1972), whether in mathematical formula, or a word description of the procedure to be implemented by a suitably programmed computer. *Typhoon Touch Techs., Inc. v. Dell, Inc.*, 659 F.3d 1376 (Fed. Cir. 2011) (“i.e., . . . a step-by-step procedure for accomplishing a given result”).

If an algorithm is required, that algorithm may be disclosed in any understandable form: a mathematical formula, in prose, as a flow chart, or in any other manner that provides sufficient structure. *See Finisar*, 523 F.3d at 1340. But, “simply reciting ‘software’ without providing some detail about the means to accomplish the function is not enough.” *Id.* at 1340-41. Nonetheless, even though the algorithm may be expressed in any understandable way, the purported algorithm cannot “merely provide[] functional language” and must provide a “step-by-step procedure” for accomplishing the claimed function. *Ergo Licensing, LLC v. CareFusion 303, Inc.*, 673 F.3d 1361, 1365 (Fed. Cir. 2012). Further, “[i]t is well settled that simply disclosing software, however, without providing some detail about the means to accomplish the function, is not enough.” *Function Media, L.L.C. v. Google, Inc.*, 708 F.3d 1310, 1318 (Fed. Cir. 2013) (citation and internal quotations and alterations omitted).

In limited circumstances, a general purpose computer may suffice as structure for a generic function (such as “processing”) if the function is “coextensive with the structure disclosed.” *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1316 (Fed. Cir. 2011) (“Absent a possible narrower construction of the terms ‘processing,’ ‘receiving,’ and ‘storing,’ . . . those functions can be achieved by any general purpose computer without special programming. As such, it was not necessary to disclose more structure than the general purpose processor that performs those functions.”). However, a construction narrowing the functions to “specific computer-implemented functions” requires corresponding algorithms to be disclosed. *Id.* at 1317.

III. CONSTRUCTION OF AGREED TERMS

The Court hereby adopts the following agreed constructions:

<u>Term</u>	<u>Agreed Construction</u>
“from a display device” (‘228 patent)	“from the display of a display device”
“session(s)” (‘898 and ‘070 patents)	“a period of time including multiple presentations, such as a conference or meeting”
“still image generator” (‘070 patent)	“a mechanism for generating still images, but not video”

(Dkt. No. 42, 12/12/2013 Joint Claim Construction and Prehearing Statement.)

IV. CONSTRUCTION OF DISPUTED TERMS

As an initial note, in its responsive brief Defendant (for all or nearly all of the disputed terms) repeatedly argues that if the term is not construed or if it is not construed as proposed by Defendant, then the claims reciting the terms are invalid as lacking written description. (*See* Dkt. No. 50 at 16, 17, 20, 22, 24, 26-27.) Further, Defendant also presents many other terms that allegedly lack written description based on the ‘228 patent and argues in a few pages that claims reciting these terms are therefore invalid, but does not present issues of claim construction as to these terms.¹ (Dkt. No. 50 at 27-29.) In its reply, Plaintiff argues generically that these terms are well known to those of ordinary skill in the art, and for selected terms provides references in the ‘228 patent specification that allegedly support such terms. (Dkt. No. 54 at 8-9.)

¹ These terms include at least the following: “media assets of live presentations comprising a session,” “sequentially presented visual aids,” “group of images consisting of slides, photographs, graphs, discrete motion picture clips, and text,” “real-time image data marking,” “real-time session marking,” “automatically dividing captured media asserts into discrete files ... based on the session markings,” “modified presentations,” “modifying visual aid images,” “at least two capture devices configured to capture media asserts,” a “capturing component,” a “receiving component,” and a “converting component.”

Whether or not the specification sufficiently enables or describes a particular claim term is a validity argument – not a claim construction argument – and the Court will not address the issue of invalidity for lack of written description at this time. Likewise, the fact that the Court provides in this opinion a construction for a disputed term or that it holds a term has its plain meaning is not dispositive as to whether any term (construed or not construed) is necessarily supported by any of the Asserted Patents or that a claim in the later filed patents can appropriately claim priority to the parent ‘228 patent.

The parties’ positions and the Court’s analysis as to the disputed terms are presented below.

A. “still image(s)” and “electronic still image(s)”

<u>Disputed Terms</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“still image(s)” (‘228 patent, claims 1, 5, 8, 11, 16, 17; ‘070 patent, claims 2, 13, 17, 21, 24, 29, 30, 32)	No construction is required. Alternatively, “a single static image, as distinguished from an image that is in motion”	“images that are not from a video or video stream, but rather images that are from something still (e.g. a slide)”
“electronic still image(s)” (‘070 patent, claim 13)	No construction is required. Alternatively, “a digital representation of a single static image, as distinguished from an image that is in motion”	“electronic images that are not from a video or video stream, but rather images that are from something still (e.g. a slide)”

The disputed term “still image(s)” appears in claims in both the ‘228 and ‘070 patents. The disputed term “electronic still images” appears in claims in only the ‘070 patent. Because these terms are related and have similar proposals and arguments by the parties, the Court will consider these terms together.

(1) The Parties' Positions

Plaintiff submits that the “still image” term does not require construction and should be afforded its plain and ordinary meaning. (Dkt. No. 47 at 1, 9-11.) In particular, Plaintiff argues that the Applicant made no limiting statements in the specification or prosecution history of the Asserted Patents. (*Id.*) Plaintiff argues that Defendant’s argument that a still image cannot be taken from a video or video stream is wrong. (*Id.*) Plaintiff argues that a “video clip can be stopped and the resulting image captured as a still image.” (*Id.* at 10.) Likewise, “individual frames making up a video stream can be captured as a series of still images.” (*Id.*) Plaintiff argues that Defendant’s construction would unnecessarily limit the scope of the asserted claims and that there is no clear indication in the prosecution history that a still image cannot be derived from a video or video stream or that it should be defined in any other way than by its plain and ordinary meaning. (*Id.*) Plaintiff relies on its arguments for the “still image” term for the disputed “electronic still image” term. (*See id.* at 21.)

Defendant responds that the “still image” term is not found in the specification of the ‘228 patent. (Dkt. No. 50 at 8.) Rather, Defendant argues in great length that the ‘228 patent specification provides two different embodiments for recording presentations: an images embodiment and an alternative video embodiment. (*Id.* at 9-15.) Defendant argues that the asserted claims are limited to the system directed to recording from images. (*Id.* at 9.) Defendant argues that “[a]n image is an image, and a video is a video” and Plaintiff is attempting to redefine an image into something that could be in motion (such as a video). (*Id.*) Defendant argues that there is a significant difference between recording images and recording videos, that there is a commonly understood distinction between images and video (and image and video signals), and the term “still image” is intended to capture this difference. (*Id.* at 12.) Defendant

also relies upon the declaration of Dr. Kevin Almeroth in support of its proposed construction. (*Id.*) Defendant further argues that the applicant expressly disclaimed a system that derived images from a video or video stream during prosecution of the '228 patent. (*Id.* at 12-16.) Defendant further argues that because certain means-plus-function limitation in the '070 patent recite the "still image" limitation, that these claims are limited to the images embodiment of the patents and not the separate video embodiment. (*Id.* at 16.) Defendant also argues that if the term is not construed or if it is construed as broadly as the Plaintiff wishes, that the claims reciting the "still image" limitation are invalid as lacking written description and indefinite as being insolubly ambiguous. (*Id.*)

Plaintiff replies that the prosecution history statements relied upon by Defendant do not define "still image" and they do not disavow a "still image" as not capable of being derived from a video. (Dkt. No. 54 at 5-6.) Plaintiff argues that these passages have nothing to do with the definition of still image as they pertain to the unrelated concept of "frame grabbers." (*Id.* at 6.) In contrast, Plaintiff argues that the '228 patent includes many references to images including "digital video image," citing generally col. 2, ll. 9-15 and col. 4, ll. 43-55. (*Id.*) Plaintiff argues that the claim term "image" should not be construed one way when appearing alongside the term "still" and a different way when the words "digital video" are added – "[a]n image is just an image regardless of its source." (*Id.*) Further, Plaintiff argues that Defendant's reliance on the prosecution history of an abandoned application is misguided as it relates to a prior art reference and not to the definition of "still image." (*Id.* at 6-7.) Such a passage is not a disavowal that images cannot be derived from video or a definition of the term "still image." (*Id.*)

(2) Analysis

The parties' primary dispute is whether the term "still image" applies to images that are from a video or video stream. There seems to be no dispute that the term "still image" does not apply to "videos." Indeed, for the "still image generator" term in claim 32 of the '070 patent, the parties agree that it means "a mechanism for generating still images, not video." (Dkt. No. 42 at 2.) Further, based on the parties' proposed constructions and related arguments, there seems to be no dispute that a still image is one that does not move and is not in motion. Thus, the real dispute is whether the "still image" term applies to images that are taken from from a video.

The inherent meaning of the "still image" term contrasts images from video. Plaintiff relies on a definition from Wikipedia for still image:

A **still image** is a single static image, as distinguished from a kinetic image (see below). This phrase is used in photography, visual media and the computer industry to emphasize that one is not talking about movies, or in very precise or pedantic technical writing such as a standard.

(emphasis added; taken from definition of "image" which also defines "still image.") Indeed, even Plaintiff's relied upon dictionary definition contrasts videos and movies from still images and contrasts still images to moving/kinetic images. (*See id.*) Merriam-Webster's dictionary defines the term "still" as "not moving" or "lacking motion or activity." In relation to photographs, Merriam-Webster's dictionary offers various definitions of "still," including "(1): of, relating to, or being a static photograph as contrasted with a motion picture (2): designed for taking still photographs <a still camera> (3): engaged in taking still photographs <a still photographer>." Likewise, Defendant's expert, in a declaration submitted with Defendant's responsive claim construction brief, provides an explanation of the differences between video and still images and the different concerns between recording an image from image content as

opposed to a single image from video content. (Exh. D to Dkt. No. 50, at paragraphs 28-36.) Defendant's expert opines that a system that records "still images" is a system that is directed to recording from image content as opposed to video content. (*Id.* at paragraph 33.) The Court finds that the inherent meaning of the term differentiates still images from video. While Defendant argues "an image is an image" and a "video is a video" (Dkt. No. 50 at 9), that argument is not determinative of whether selected images or frames from a video can be an image or "still image." Similarly, the Court finds that Plaintiff's argument that "[a]n image is just an image regardless of its source" is not dispositive as to the "still image" term. (Dkt. No. 54 at 6.)

The term "still image" appears in various claims of the '228 and '070 patents. Asserted claim 1 of the '228 patent is representative and is shown below:

1. A method of capturing a live presentation, comprising the steps of:

capturing **still images** from a display device which displays said **still images** for viewing by an audience during a live presentation;

during the live presentation, detecting the change over from one **still image** to another;

recording the audio portion of a speaker's presentation during a live presentation; and

in response to said detected change over from one **still image** to another, automatically synchronizing change over from one **still image** to another with the audio recording.

(emphasis added). The claim language, by itself, does not imply that the "still image" term means anything other than its plain meaning.

The specification of the '228 patent does not reference the term "still image." Instead, the specification has repeated references to the term "slide image." For the term slide, the specification lists various types of projected media that would be characterized as "slides,"

including 35-mm slides, slides from a computer-generated presentation, overhead transparencies, and paper documents. (‘228 patent, col. 7, l. 66 – col. 8, l. 13; *see also* claim 6 of the ‘228 patent.) Defendant argues that the specification discloses an images embodiment and a video embodiment, and because the claims are directed to the images embodiment, that the “still image” term itself must be limited to images and not video. (Dkt. No. 50 at 8-12.) The Court does not find this argument necessarily correct or persuasive, particularly as to the meaning of the “still image” term.

While not substantively relied on in the parties’ briefing, the additional material added in the ‘898 and ‘070 patents is informative. For example, the patentee added the following disclosures in the ‘898 patent specifically related to this term:

Naturally, the image signal can be **video or a still image** signal.

For example, image capture of the slide(s) can be timed to occur at predetermined or selectable periods. In this way, **animation, video inserts, or other dynamic images** in computer generated slide presentations can be captured, at least as stop action sequences. **Alternatively or additionally, the slide capture can be switched to a video or animation capture during display of dynamically changing images, such as that which occurs with animation or video inserts in computer generated slides.** Thus, the presentation can be fully captured including capture of **dynamically changing images**, with a potential increase in file size.

Video of the data portion of a presentation, including image data of sequentially presented visual aids, can be input to a capture device, such as the ENCORE capture device from Astute Technology, using VGA or DVI. In some embodiments, the resolution of the **video images** can be preserved by using a frame rate of capture of approximately 12-15 frames per second. The capture device can be configured to capture **dynamic data** embedded in a presentation, such as **movies, animations, transitions, etc.**, as well as electronic pointer position data.

(‘898 patent, col. 6, ll. 46-47; col. 7, ll. 50-60; col. 24, ll. 32-42 (emphasis added).) While the specification of the ‘228 patent focuses on slide images, the ‘898 and ‘070 patents expressly

differentiate video signals from still image signals, and includes disclosure related to how to obtain image or video capture of “animation,” “video inserts,” “dynamic images,” “dynamically changing images,” etc. and not just a still image. (*See id.*)

The prosecution history of the ‘228 patent is also relevant here. In distinguishing the prior art Anderson reference, the Applicant stated that the Anderson reference merely discloses a digital camera and not a display device for an audience and is not relevant to the present invention. (Dkt. No. 50 at 12-13.) In further explanation and distinguishing with the Anderson reference, the Applicant contrasted its disclosure:

The imaging element (e.g., a CCD) may be part of the projector or ancillary to a projector. While the projector projects a still image, e.g., a slide, its image is diverted either momentarily by a solenoid operated mirror or by a beam splitter onto the imaging element. The signal from the imaging element is then recorded. Concurrently, an audio portion of the lecture is recorded. As the lecturer switches from one slide to the other, the audio recording is synchronized therewith to mark the spot in which still image changed, i.e., one slide changing to another.

(Response to Office Action dated November 7, 2001 at 7-8 (Exh. E to Dkt. No. 50)(emphasis added).) Later, during prosecution of the ‘228 patent, the Applicant argued around the Shipp prior art reference and stated that it was directed to an entirely different invention:

Specifically, the present invention detects the change over from one still image to another during a live presentation. **In contrast [to the claimed invention], a physician viewing a video monitor can selectively capture images but the monitor displays a video, not still images.** Even if one were to assume that when he captured a frame from the video screen, this would still not involve detecting a change over from one still image to another insofar as he simply designates what frame he once captured and not the converse of detecting when frames change. In video systems, frames change at a prescribed rate, e.g., at a rate of 30 frames per second. In this mechanism, there would be no reason for one to detect the change over from one frame to another (assuming that one could analogize a frame of a video to a still image). This carries with it the consequence that there is no automatic synchronizing of the change over from one still image to another with an audio recording in response to a detected change over from one still image to another ... **Quite the converse, because it is a video stream, there is no reason for the Shipp system to detect the change over from one still image to another**

except that the change over is automatically synchronized from one still image to another with the audio recording. In the Shipp patent, instead, the frame of the video is captured ...

(Response to Office Action dated February 26, 2002 at 5-6 (Exh. F to Dkt. No. 50)(emphasis added).) Later in the prosecution of the ‘228 patent in an appeal brief, the Applicant reiterated its position that detecting the change over from one still image to another was distinct from taking a single frame from a video stream:

[T]here is still no suggestion as to why one would involve “detecting the change over from one still image to another”. Instead, the Shipp patent expressly says it includes a frame grabber. Frame grabbers take a single frame from a video stream... Stated plainly, the surgeon electronically grabs a frame from a video stream. The system does not detect change over from one still image to another.

(Appeal Brief dated November 22, 2002 at 7 (Exh. G to Dkt. No. 50) (emphasis original).) While the Defendant also cites to portions of the prosecution history of an abandoned continuation-in-part application to the ‘228 patent, the Court does not find these citations or statements made therein particularly helpful as to the meaning of a “still image.” (See Dkt. No. 50 at 14-15.) As a whole, the Court finds that the prosecution history of the ‘228 patent distinguishes still images from video. Further, the Court finds that the Applicant distinguished still images from frames from a video.

On balance, the inherent meaning of the term “still image,” combined with the specification and the prosecution history, demonstrates that still images are distinct from video, movies, animations, etc. and images or frames taken from a video. This evidence should be given effect in the Court’s constructions. *Typhoon Touch*, 659 F.3d at 1381 (“The patentee is bound by representations made and actions that were taken in order to obtain the patent.”); *Retractable Techs., Inc. v. Becton, Dickinson & Co.*, 653 F.3d 1296, 1305 (Fed. Cir. 2011) (“In reviewing the intrinsic record to construe the claims, we strive to capture the scope of the actual

invention, rather than strictly limit the scope of claims to disclosed embodiments or allow the claim language to become divorced from what the specification conveys is the invention.”). Thus, the Court rejects Plaintiff’s arguments that individual frames making up a video stream can be captured to form a series of “still images.” (*See* Dkt. No. 47 at 10.) On the other hand, the specification is clear that still images can be shown from and captured from a computer-generated presentation, and thus the Court rejects Defendant’s arguments to the extent they limit a “still image” to a physical document or argue that a “still image” cannot apply to images provided via a general video signal. The Court also disagrees that the “still image” term cannot apply to the capture of a still image from a video clip that has been already stopped and, for example, is being shown via a projector as a non-moving, static image to a live audience. A paused movie (or a single image previously taken from a movie) that is static and is being displayed as a single static image to the live audience via, for example, a computer-generated presentation is essentially a still image and is not a moving or dynamically changing image.

To give meaning to the term “still image” and the intrinsic evidence related to this term, the Court finds that the term “still image” is a single image that is static and is not in motion. A still image is not an image that is presented together or successively with, or in a continuum or series of images that are in motion, other images to form an animation, video, or movie. In other words, it is a non-moving image as compared to a moving image or dynamic image. Still further, the Court finds that there is no genuine dispute as to the word “electronic” in the disputed term “electronic still image,” and Plaintiff’s suggestion of “digital representation” (as opposed to Defendant’s re-use of the “electronic” word) is no clearer than the term being disputed.

The Court hereby construes “**still image(s)**” to mean “**a single static image that does not move and is presented in isolation from other images.**”

The Court hereby construes “**electronic still image(s)**” to mean “**an electronic single static image that does not move and is presented in isolation from other images.**”

B. “image data” and “digital still image data”

<u>Disputed Terms</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“image data” (‘898 patent, claims 26, 27, 34, 38; ‘070 patent, claims 1, 13)	No construction is required. Alternatively, “digital information representative of an image”	“information representative of images that are not from a video or video stream (e.g. a slide)”
“digital still image data” (‘070 patent, claims 32, 33)	No construction is required. Alternatively, “digital information representative of a still image”	“information, in a digital format, representative of images that are not from a video or video stream, but rather images that are from something still (e.g. a slide)”

The disputed term “image data” appears in claims in both the ‘898 and ‘070 patents. The disputed term “digital still image data” appears in claims in only the ‘070 patent. Because these terms are related and have similar proposals and arguments by the parties, the Court will consider these terms together.

(1) The Parties’ Positions

Plaintiff submits that the “image data” term does not require construction and should be afforded its plain and ordinary meaning. (Dkt. No. 47 at 1, 17-18.) Plaintiff argues that, similar to the “still image” term found in the ‘228 patent, the Applicant made no limiting statements in the specification or prosecution history of the Asserted Patents to limit this term to exclude images from a video or video stream. (*Id.*) Plaintiff asserts that Defendant is impermissibly relying on specific examples from the specification as to what is meant by “image data.” (*Id.*)

Plaintiff provides numerous examples in the ‘898 patent (but not the ‘228 patent) that “image data” can come from a variety of media types, including still images, video, and video streams. (*Id.* at 18.) Plaintiff appears to rely on its arguments for the “image data” term to the similar term of “digital still image data.” (*See id.* at 21.)

Defendant responds that the term “image data” should be interpreted similar to the “still image” term as it can only plausibly refer to the images embodiment of the specification as opposed to the video embodiment. (Dkt. No. 50 at 17.) Defendant argues that both parties agree that any interpretation should acknowledge that the use of “data” refers to “information representative of” an image, which is consistent with the industry understanding of the term as shown by a Microsoft Computer Dictionary. (*Id.*) Defendant argues that the only dispute is whether the image may originate from a video or video stream as opposed to something that is still. (*Id.*) Defendant also relies upon the declaration of Dr. Kevin Almeroth in support of its proposed construction. (*Id.*) Defendant also argues that if the term is not construed or if it is construed as broadly as the Plaintiff wishes, that the claims reciting the “image data” limitation are invalid as lacking written description and are indefinite as being ambiguous. (*Id.* at 16-17.)

(2) Analysis

The parties agree that any construction for the “image data” term should include the phrase “information representative of an image.” The Court finds that this phrase is consistent with the term’s ordinary meaning. The parties’ primary dispute is whether the term also includes the restriction that the term cannot apply to images that originate from a video or video stream.

Claims 26 and 27 of the ‘898 patent and claims 1, 13, and 32 of the ‘070 patent are representative and include the “image data” term and are shown below (in relevant part):

[claim 26 ...] capturing media assets of live presentations comprising a session, the media assets including 1) **image data** of a plurality of sequentially presented visual aids accompanying the live presentations and 2) audio data, wherein at least two of the visual aids are selected from the group of images consisting of slides, photographs, graphs, discrete motion picture clips, and text, and wherein the capturing includes real-time 1) **image data** marking of the **image data** for identification of individual images and 2) session marking of the **image data** for demarcation of individual presentations of the session;

[claim 27] The method of claim 26, wherein the capturing the **image data** comprises capturing video images of presenters of the presentations.

[claim 1 ...] at least two capture devices configured to capture media assets of live presentations comprising a session, the media assets including 1) **image data** of a plurality of sequentially presented visual aids accompanying the live presentations, 2) audio data, and 3) video data of a presenter of the corresponding live presentation, wherein at least two of the visual aids are selected from the group of images consisting of slides, photographs, graphs, discrete motion picture clips, and text, and wherein each capture device includes an interface that enables real-time 1) **image data** marking of the **image data** for identification of individual images and 2) session marking of the **image data** for demarcation of individual presentations of the session;

[claim 13 ...] means for capturing during the live presentation **electronic still image data**, said **image data** also being used for displaying said still images by a display device which displays said still images for viewing by an audience;

[claim 32 ...] a still image generator for displaying a still image; a capturing component configured to capture **digital still image data** from data used to generate the still image, while the still image is being displayed by the still image generator to an audience as part of the lecture presentation;

(emphasis added.) The Court finds that the use of the term “image data” in these claims does not, by itself, indicate whether the term should be interpreted to exclude images from a video or video stream. Indeed, just the opposite is true. For example, claim 26 of the ‘898 patent indicates that the visual aids can be discrete motion picture clips, and the “image data” of the visual aids (e.g., motion picture clips) can be captured. Likewise, claim 27 of the ‘898 patent expressly requires that “capturing the image data comprises capturing video images of presenters

of the presentations.” In contrast, other claims, such as claims 13 and 32 of the ‘070 patent, reference still image data, implying that the image data is not of video but of still images.

The prosecution history is not particularly helpful. Apart from the above cited prosecution history for the “still image” term, neither party advances any arguments or citations to the prosecution history of the Asserted Patents that is specific to this term.

Plaintiff argues that the specification of the ‘898 and ‘070 patents contemplate image data that can represent both still image and video or video streams, and relies on the following citations:

An exemplary system for capturing and distributing presentations includes at least two capture devices configured to capture media assets of live presentations comprising a session, the media assets including 1) image data of a plurality of sequentially presented visual aids accompanying the live presentations and 2) audio data. At least two of the visual aids are selected from the group of images consisting of slides, photographs, graphs, discrete motion picture clips, and text. Each capture device includes an interface that enables real-time 1) image data marking of the image data for identification of individual images and 2) session marking of the image data for demarcation of individual presentations of the session.

The video signal carrying the digital video image data from the CCD 206, for example, enters a computer 102, which is integrated within the projection box in this implementation, via a digital video image capture board contained in the computer (e.g., TARGA 2000 RTX PCI video board available from Truevision of Santa Clara, Calif.). **Naturally, the image signal can be video or a still image signal.**

This connection allows the computer 102 to receive digital video image data from the CCD 206 and to control the action of the mirror 204 via the solenoid 202 (shown in FIG. 2).

Video of the data portion of a presentation, including image data of sequentially presented visual aids, can be input to a capture device, such as the ENCORE capture device from Astute Technology, using VGA or DVI. In some embodiments, the resolution of the video images can be preserved by using a frame rate of capture of approximately 12-15 frames per second. The capture device can be configured to capture dynamic data embedded in a presentation,

such as movies, animations, transitions, etc., as well as electronic pointer position data.

The media assets can include image data of sequentially presented visual aids accompanying the live presentations and audio data. Exemplary visual aids include slides, photographs, graphs, discrete motion picture clips, and text.

(Dkt. No. 47 at 18; *see also* ‘898 patent, col. 2, ll. 13-23; col. 6, ll. 41-47; col. 14, ll. 1-4; col. 24, ll. 32-42; col. 30, ll. 51-55 (emphasis added).) Indeed, the ‘898 patent expressly mentions “the image signal can be video or a still image signal.” (Col. 6, l. 47.) Rather than disputing these citations, Defendant argues that because the ‘228 patent has one embodiment that is directed to capturing “still images” and “still image data” and another embodiment that is directed to recording content from video, that the term “image data” must be interpreted in a similar fashion as the “still image” term.

The Court rejects Defendant’s attempt to merge the “still image” limitations and arguments to the separate “image data” terms. While the Defendant makes much of the “two separate embodiments” argument in the specification, the Court is not convinced that this argument is correct or applies to the term “image data.” Similarly, as discussed above, there are portions of the specification in the ‘228 patent as well as the ‘898 and ‘070 patents that support Plaintiff’s position that the patents contemplate image data that can represent both still images and video. Further, as found expressly in the claims, in some instances the “image data” is expressly referencing the “still image” limitation (such as in claims 13 and 32 of the ‘070 patent), whereas in other instances it is generically referencing “image data” without any reference to a still image (such as in claim 1 of the ‘070 patent). The specification of the ‘228 patent, as well as the ‘898 and ‘070 patents, does not support the limited definition of “image data” as suggested by Defendant. Thus, based on the claim language and the specifications of

the Asserted Patents, the Court rejects Defendant’s attempt to include the restriction that the term “image data” cannot apply to images from a video or video stream.

While the Plaintiff’s proposed constructions largely comport with the plain and ordinary meaning of these terms, the Court finds that on balance, a construction will be helpful to the finder of fact. Thus, consistent with the term’s plain meaning and as proposed by both parties, the Court construes the term “image data” to mean “information representative of an image.” The Court finds no basis to insert Plaintiff’s proposal of “digital” in this construction, particularly in view that other terms in the patents expressly state digital (such as “digital still image data”). The Court finds that there is no genuine dispute as to the word “digital.”

The Court hereby construes **“image data”** to mean **“information representative of an image.”**

The Court hereby construes **“digital still image data”** to mean **“digital information representative of a still image.”** As noted above, the constituent term “still image” is separately construed by the Court in this Memorandum Opinion and Order.

C. “capturing” and “capture”

<u>Disputed Terms</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“capturing still image(s)” (‘228 patent, claim 1; ‘070 patent, claim 2)	No construction is required. Alternatively, “the process of putting information representing one or more still images in a form that a computer can use or read”	“diverting either momentarily by a solenoid operated mirror or by a beam splitter a still image onto an imaging element and recording said still image”

“capturing / captured media assets” (‘898 patent, claim 26; ‘070 patent, claim 1)	No construction is required. Alternatively, “the process of putting information representing one or more types of digital media in a form that a computer can use or read”	“capturing / capture media assets, wherein capture of image data involves diverting either momentarily by a solenoid operated mirror or by a beam splitter an image onto an imaging element and recording said image”
“capture device” (‘070 patent, claim 1)	No construction is required. Alternatively, “a piece of equipment which can be used to obtain information in a form a computer can use or read.”	“a device for diverting either momentarily by a solenoid operated mirror or by a beam splitter an image onto an imaging element and recording said image”
“capture digital still image data” (‘070 patent, claims 13, 32)	No construction is required. Alternatively, “the process of putting information representing one or more digital still images in a form that a computer can use or read”	“diverting either momentarily by a solenoid operated mirror or by a beam splitter a still image onto an imaging element and recording said still image as information in a digital format”

The disputed term “capture” and “capturing” appears in claims in each of the ‘228, ‘898, and ’070 patents. While the above phrases include other terms (sometimes disputed), these capturing terms are related and have similar proposals and arguments by the parties, and thus the Court will consider these terms together. To the extent the above phrases include other disputed terms besides the capturing term, those will be addressed separately in this Memorandum Opinion and Order.

(1) The Parties’ Positions

Plaintiff submits that the “capturing still images” term does not require construction and should be afforded its plain and ordinary meaning. (Dkt. No. 47 at 1, 11-12.) In particular, Plaintiff argues that the Applicant made no limiting statements in the specification or prosecution history of the Asserted Patents to limit capture to require a solenoid operated mirror or beam

splitter. (*Id.*) Plaintiff argues that Defendant's construction is not based in the asserted claims and is only found in a single embodiment of the specification. (*Id.* at 11.) Plaintiff argues that the specification discloses other ways to capture (such as use of a computer-generated slide presentation) and that Defendant's construction impermissibly limits the claims to a single embodiment. (*Id.*) Plaintiff relies on these same arguments for the "capturing/captured media assets" term and for the "capture device" and "capture digital still image data" terms. (*See id.* at 16, 17, 21.)

Defendant responds that because all the claims are directed to the capture of "still images" or "image data," that the claims must be limited to the images embodiment of the specification and not the video embodiment. (Dkt. No. 50 at 18.) Defendant argues that because the only support for the images embodiment is a system that diverts, either momentarily by a solenoid operated mirror or by a beam splitter, a still image onto an imaging element and recording that image, that the capturing term must be so limited. (*Id.* at 18-19.) Defendant argues that its proposed construction comes straight from the applicant's own statements during prosecution of the '228 patent. (*Id.*) Defendant also relies upon the declaration of Dr. Kevin Almeroth in support of its proposed construction. (*Id.*) Defendant further argues that because certain means-plus-function limitation in the '070 patent recite the "capturing" limitation, that these claims are limited to the images embodiment of the patents and not the separate video embodiment. (*Id.* at 20.) Defendant also argues that if the term is not construed or if it is construed as broadly as Plaintiff wishes, that the claims reciting the capture/capturing limitation are invalid as lacking written description. (*Id.*)

Plaintiff replies that Defendant's argument that the only support for a system that captures is a system that diverts is false, as the '228 patent shows that such a diverting technique is one of many examples for capturing. (Dkt. No. 54 at 7.)

(2) Analysis

Each of the above disputed terms uses the word "capture" or "capturing," and the parties' constructions for these terms revolve mostly around the constituent "capture" term. The parties do not appear to dispute the ordinary meaning of the term "capture," but they do dispute whether the claims and the specification require "capture" to mean something other than its ordinary meaning. The Court finds that it does not, and that "capture" has its plain meaning.

The term "capture" is used repeatedly in the specification and claims of the Asserted Patents. Based on the claim language, there is no support for Defendant's inclusion of the language "diverting either momentarily by a solenoid operated mirror or by a beam splitter a [still] image onto an imaging element and recording said [still] image." The claims do not require the use of a "solenoid operated mirror" or a "beam splitter" as proposed by Defendant. Rather, the claims suggest that Defendant's construction is improper. For example, while claim 1 of the '228 patent generically recite a method step of "capturing still images from a display device ...," independent claims 2, 3, and 4 of the '228 patent recite further limitations to the "capturing" limitation. These additional limitations are either superfluous to or inconsistent with Defendant's construction, which support the argument that Defendant's construction is not proper. The Court should give effect to the use and non-use of different limitations to the "comprising" step. *See, e.g., CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co.*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) ("In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings."); *see also Merck*

& Co. v. Teva Pharm. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”).

The ‘228 patent specification contains numerous references to the term “capture” in a wide variety of contexts. For example, under the heading entitled “Capturing Lectures,” the term “capture” is used in the context of capturing lecture presentation 35-mm slides, computer-generated presentations, overhead transparencies, and paper documents (all of which the specification refers to generally as “slides”). (*See, e.g.*, ‘228 patent, col. 7, l. 59 – col. 8, l. 13.) The term “capture” is also used in the context of “video” capture. (*Id.* at col. 5, ll. 37-42; col. 6, ll. 38-46; col. 7, ll. 25-28; col. 11, ll. 57-58; col. 12, ll. 49-54.) Indeed, the term “capture” is even used in the context of capturing audio data. (*Id.* at col. 3, ll. 1-4; col. 7, ll. 25-28; col. 8, ll. 41-43; col. 11, ll. 57-58.) While the ‘228 patent does reference the use of a mirror assembly and a beam splitter (*see, e.g.*, col. 4, ll. 27-32; col. 13, ll. 37-52), the specification also references other ways to capture images, such as a computer-generated slide presentation and overhead transparencies, both of which do not require the use of a mirror assembly. (*Id.* at col. 4, ll. 40-50.) These other embodiments “avoid[] the need for the mirror assembly and the digital camera, because [they] transfer the video image data directly to the computer for storage at the same time that it projects the image onto the projection screen.” (*Id.* at col. 4, ll. 49-53.) Further, the ‘228 patent expressly mentions “any of these methods or other methods may be used to capture digital video image data of the presentation slides in the computer.” (*Id.* at col. 4, ll. 54-56; *see also* col. 12, ll. 49-52.)

The Court finds that the examples in the specification are non-limiting embodiments that should not be imported into the claims. The Federal Circuit has consistently held that “particular embodiments appearing in the written description will not be used to limit claim language that

has broader effect.” *Innova/Pure Water*, 381 F.3d at 1117. Even where a patent describes only a single embodiment (which is not the case here), absent a “clear intention to limit the claim scope,” it is improper to limit the scope of otherwise broad claim language by resorting to a patent’s specification. *Id.* The Court is not convinced that the broadly used “capture” terms should be limited to one of the disclosed embodiments, particularly when there is no intent by the patentee to do such. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004) (citing numerous cases rejecting the contention that the claims of the patent must be construed as being limited to the single embodiment disclosed and stating that claims are to be given their broadest meaning unless there is a clear disclaimer or disavowal); *see also Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998) (“Although the specification may aid the court in interpreting the meaning of disputed claim language, particular embodiments and examples appearing in the specification will not generally be read into the claims.”); *see also Phillips*, 415 F.3d at 1323. Further, generally terms are presumed to possess their ordinary meaning, although this can be overcome by statements of clear disclaimer. *See SciMed Life Sys., Inc. v. Advanced Cardiovascular Sys., Inc.*, 242 F.3d 1337, 1343-44 (Fed. Cir. 2001).

Defendant relies on statements made by the Applicant during the prosecution of the ‘228 patent. (Dkt. No. 50 at 19.) In distinguishing the prior art Anderson reference, the Applicant stated that the Anderson reference merely discloses a digital camera and not a display device for an audience and is not relevant to the present invention. (Dkt. No. 50 at 19 and Exh. E at 7-8.) In further explanation and distinguishing with the Anderson reference, the Applicant contrasted its disclosure:

The imaging element (e.g., a CCD) may be part of the projector or ancillary to a projector. While the projector projects a still image, e.g., a slide, its image is diverted either momentarily by a solenoid operated mirror or by a beam splitter onto the imaging element. The signal from the imaging element is then recorded. Concurrently, an audio portion of the lecture is recorded. As the lecturer switches from one slide to the other, the audio recording is synchronized therewith to mark the spot in which still image changed, i.e., one slide changing to another.

(Response to Office Action dated November 7, 2001 at 7-8 (Exh. E to Dkt. No. 50).) The Court finds that this statement is not an express disavowal to the capturing term or an express definition to the term “capture,” but is merely an illustration of a non-limiting example of an embodiment from the specification. Likewise, the Court finds that the applicant’s statements in a continuation-in-part application of the application leading to the ‘228 patent (application no. 09/955,939, later abandoned) regarding the structure of a particular means-plus-function limitation involving the “capturing” limitation also does not warrant Defendant’s construction. (*See, e.g.*, Dkt. No. 50 at 19 and Exh. I at 17.)

As detailed above, the Court finds that there are no limiting statements in the specification, the claims, or the prosecution history that require the “solenoid-operated mirror” and “beam splitter” limitations suggested by Defendant. In fact, as described above, the specification is clear that the “capture” process can be applied to computer-generated presentations (and other embodiments) without using the mirror assembly. Defendant’s “solenoid-operated mirror” and “beam splitter” requirements are thus expressly rejected.

Various dictionary definitions offer similar definitions for the term capture, including (among many others) that it means to record in permanent form, the act or process of inserting or transferring data into a computer, and the act of putting information in a form that a computer can use or read (as proposed by Plaintiff). Indeed, even Defendant’s construction includes a reference that “capture” means to “record.” As mentioned above, the “capturing” term is used in

the context of recording and storing images and live presentations, which is consistent with the plain meaning of the term. Because construing the “capture” term will only tend to confuse rather than clarify, and the Court is not convinced that Plaintiff’s construction is more helpful to the jury as opposed to the plain meaning, “capture” requires no further construction. *See U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997) (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co.*, 521 F.3d 1351, 1362 (Fed. Cir. 2008) (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”) (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court accordingly hereby construes “**capturing still image(s)**” to have its **plain meaning** in light of the construction of the constituent term “still image,” discussed separately in this Memorandum Opinion and Order.

The Court accordingly hereby construes “**capturing / captured media assets**” to have its **plain meaning**.

The Court accordingly hereby construes “**capture device**” to have its **plain meaning**.

The Court accordingly hereby construes “**capture digital still image data**” to have its **plain meaning** in light of the construction of the constituent term “digital still image data,” discussed separately in this Memorandum Opinion and Order.

D. “display device”

<u>Disputed Term</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“display device” ('228 patent, claims 1, 5; '070 patent, claims 4, 5, 13)	No construction is required. Alternatively, “an output device for presentation of information in visual form”	“a device that displays still images, not video, for an audience”

The disputed term “display device” appears in claims in the ‘228 and ‘070 patents.

(1) The Parties’ Positions

Plaintiff submits that the “display device” term does not require construction and should be afforded its plain and ordinary meaning. (Dkt. No. 47 at 1, 12-14.) In particular, Plaintiff argues that Defendant’s construction is nonsensical as it would apply to computer screens and monitors (for example) only if they displayed “still images” but that these same devices would not be “display devices” if they could also play videos or other non-still images. (*Id.* at 12.) Plaintiff argues that Defendant is trying to impermissibly merge the claim requirement that the display device displays still images into an unsupported requirement that the display device cannot play other media types. (*Id.* at 13.) Further, because certain claims in the ‘070 patent require both video and video presentation materials to be received by the display device, Defendant’s construction would be contrary to such claims. (*Id.* at 14.)

Defendant responds that, regardless of the construction for still images, the display device in these claims must be limited to a display device that displays only still images. (Dkt. No. 50 at 24.) Because still images are not videos, the display device must be one that displays still images, not videos. (*Id.* at 24-25.) Defendant argues that a slide carousel, as described in the ‘228 patent, is a display device that displays only images and not videos. (*Id.*) Defendant argues

that Plaintiff is trying to propose a definition that is devoid of any foundation in the specification or prosecution history. (*Id.*)

(2) Analysis

The parties do not dispute the ordinary meaning of the term “display device,” but they do dispute whether the claims and the specification require a “display device” to mean something other than its ordinary meaning. The Court finds that it does not, and that “display device” has its plain meaning. The patentee never intended the term to mean anything other than its plain and ordinary meaning. There are no limiting statements in the specification, the claims, or the prosecution history that warrant a different result for this term. The Court finds that the claim language sufficiently describes the “display device” term. Claim 1 of the ‘228 patent is representative and recites, in relevant part, a method of “capturing still images from a display device which displays said still images for viewing by an audience during a live presentation.” (emphasis added.) The claim does not require the display device to not display video. Rather, the claim only requires the display device to display the previously recited still images for viewing.

Thus, the Court rejects Defendant’s attempt to impermissibly limit a display device to devices that cannot play video. There is no support in the claims or the specification or the prosecution history for such a construction. In addition, Defendant’s construction rearranges words from the disputed term itself (“display device” is a “device that displays ...,”) and besides not being helpful, supports the notion that the disputed term has a well understood meaning. Further, Defendant’s construction also adds language that is separately recited in the claims. Based on the express language of the claim (*see, e.g.*, claim 1 of the ‘228 patent), the display device is required to display the previously recited still images for viewing by an audience.

There is no need to include these separate claim limitations (as proposed by Defendant) into the disputed term itself. *See Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”). Thus, the Court also rejects Defendant’s proposal as being superfluous with surrounding claim language; there is no need to include this separately claimed language in this simple term.

Plaintiff argues that the term should be given its plain and ordinary meaning, and relying heavily on a dictionary definition, substitutes other words in place of seemingly simple and readily understood terms as part of its offered construction. The Court does not believe that Plaintiff’s alternative construction is any more helpful than that of the term’s ordinary meaning. The Court sees no reason to adopt Plaintiff’s proposal as opposed to merely adopting a plain and ordinary meaning for these terms. Further, the fact that the parties agreed to the meaning of the phrase/term “from a display device” to mean “from the display of a display device” (Dkt. No. 42 at 1) confirms that there is not a dispute as to the ordinary meaning of the term “display” itself. Because construing the term will only tend to confuse rather than clarify, “display device” requires no further construction. *See U.S. Surgical*, 103 F.3d at 1568 (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro*, 521 F.3d at 1362 (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”) (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court hereby construes “**display device**” to have its **plain meaning**.

E. “detecting the change over” and “automatically synchronizing change over from one [electronic] still image to another”

<u>Disputed Terms</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“detecting the change over” (‘228 patent, claim 1)	No construction is required. Alternatively, “discovering when a change has occurred”	“automatically detecting a change from one still image to another for a reason other than user input or the passage of time”
“automatically synchronizing change over from one [electronic] still image to another” (‘228 patent, claims 1, 8; ‘070 patent, claims 13, 21)	No construction is required. Alternatively, “the synchronization of changes from one still image to another without user involvement”	“automatically synchronizing a change from one [electronic] still image to another in response to automatically detecting a change from one [electronic] still image to another for a reason other than user input or the passage of time”

The disputed term “detecting the change over” appears only in claim 1 of the ‘228 patent. The disputed term “automatically synchronizing change over from one still image to another” appears in claim 1 of the ‘228 patent and claim 21 of the ‘070 patent. The disputed term “automatically synchronizing change over from one electronic still image to another” (emphasis added) appears in claim 13 of the ‘070 patent.

(1) The Parties’ Positions

Plaintiff submits that these terms do not require construction and should be afforded its plain and ordinary meaning. (Dkt. No. 47 at 1, 14-16.) Plaintiff argues that the Applicant made no limiting statements in the specification or prosecution history of the Asserted Patents to limit these terms in any way other than their plain and ordinary meaning, much less the limitations proposed by the Defendant. (*Id.*) Plaintiff argues that Defendant’s proposed limitations are confusing and unclear and create questions regarding the “passage of time” and what other

“reasons” are contemplated, etc. (*Id.*) Plaintiff appears to rely on its arguments for these terms as to the similar phrase appearing in the ‘070 patent (which includes “*electronic* still image” as opposed to “still image”). (*See id.* at 21.)

Defendant responds that the terms “detecting the change over” and “automatically synchronizing change over” are not used in the specification of the ‘228 patent. (Dkt. No. 50 at 21.) Rather, the specification describes a process that as slides or transparencies are changed, the computer automatically records the changes and automatically detects slide changes via the infrared slide device or an automatic sensing algorithm. (*Id.*) Defendant argues that Plaintiff’s construction ignores the requirement that slide changes must actually be detected. (*Id.*) Defendant argues that the claims cannot cover a system that records images premised on the passage of time, because such a system would instead save an image copy at pre-determined time intervals regardless of changes between images. (*Id.*) Defendant also relies upon the declaration of Dr. Kevin Almeroth in support of its proposed construction. (*Id.* at 22.) Defendant also argues that if the term is not construed or if it is construed as broadly as the Plaintiff wishes, that the claims reciting the “change over” limitation are invalid as lacking written description. (*Id.*)

(2) Analysis

Claim 1 of the ‘228 patent is representative of the claimed use of these terms and is shown below:

A method of capturing a live presentation, comprising the steps of:

capturing still images from a display device which displays said still images for viewing by an audience during a live presentation;

during the live presentation, *detecting the **change over*** from one still image to another;

recording the audio portion of a speaker's presentation during a live presentation;
and

in response to said detected change over from one still image to another,
automatically synchronizing change over from one still image to another with the
audio recording.

(emphasis added.) The term “change over” is not used in the ‘228 patent or the ‘070 patent. Rather, each of the instances of “changing” is in the context of a “slide change” from one slide to the next slide. (*See, e.g.*, ‘228 patent, col. 4, ll. 20-37; col. 5, l. 49 – col. 6, l. 21; col. 6, ll. 55-58; col. 7, ll. 25-29; col. 12, ll. 49-54.) The parties do not advance any argument that there is a well-known meaning to this “change over” term and do not provide any dictionary definitions. Nevertheless, various dictionary definitions (such as Merriam-Webster) for “changeover” include “a change from one condition, system, method, etc. to another” and liken it to a “conversion.”

While Defendant relies on a few selected passages from the ‘228 patent for its construction (col. 5, ll. 49-50 and col. 7, ll. 26-28; *see* Dkt. No. 50 at 21), none of these require the limitations proposed by Defendant. The Court rejects Defendant’s uses of the word “automatically” for the term “detecting the change over.” First, this term is not limited by the “automatically” word, as opposed to the other disputed term “automatically synchronizing change over ...,” and the Court should give effect to the use and non-use of “automatically.” *See, e.g., CAE Screenplates Inc. v. Heinrich Fiedler GmbH & Co.*, 224 F.3d 1308, 1317 (Fed. Cir. 2000) (“In the absence of any evidence to the contrary, we must presume that the use of these different terms in the claims connotes different meanings.”); *see also Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”). Second, there

is nothing in the specification or prosecution history record that requires the inclusion of this “automatic” word. While the specification sometimes references the term “automatic” in the context of recording slide changes, such a reference is at best an example of a preferred embodiment and should not be used to limit the term. *See, e.g., Innova/Pure Water*, 381 F.3d at 1117; *Liebel-Flarsheim*, 358 F.3d at 906; *Comark Commc’ns*, 156 F.3d at 1187.

The Court likewise rejects Defendant’s use of the phrase “for a reason other than user input or the passage of time.” Again, there is nothing in the claims, specification, or prosecution history that necessitates the inclusion of these limitations to the term “detecting the change over.” Still further, the Court rejects Defendant’s inclusion of the limitation “from one still image to another,” as that is directed not as much to the underlying term in dispute (“change over”) as it is to other limitations recited in the claim.

In each instance when the term “change over” is used in the claims, it is also used in conjunction with the term still image. (*See, e.g.*, claims 1 and 8 of the ‘228 patent and claims 13 and 21 of the ‘070 patent.) This is consistent with the ‘228 patent specification’s disclosure of detecting changes with the use of slides and the inherent meaning of the term “changeover” (e.g., a conversion or change from one item to another). Based on the claims and the intrinsic evidence, the Court finds that the term “change over” simply means “still image change.” Indeed, use of the term “change over” would not make sense in the context of videos and is not as generic as merely a “change” as proposed by Plaintiff. While the Plaintiff argues plain meaning of the “detecting the change over” term, it substitutes (without clear reason) “discovering” for “detecting.” The Court finds that it is not helpful to simply substitute (without specification support) one word for another word, particularly when the substitution is no more helpful than that of the term’s ordinary meaning. Because Defendant uses the term “detecting”

and Plaintiff argues that each term should be given its plain meaning, there appears to be no dispute as to the “detecting” term itself.

For the similar “automatically synchronizing change over from one [electronic] still image to another,” the parties both try to incorporate different language for the “automatic” term, such as “without user involvement” (as proposed by Plaintiff) or “other than user input or the passage of time” (as proposed by Defendant). Although neither side has demonstrated that “automatic” is not being used in accordance with its ordinary, readily-understandable meaning, the parties appear to dispute the term’s meaning. While the Court does not find a material difference between the parties’ constructions as to the “automatic” word, on balance, the Court finds that Plaintiff’s construction of “without user involvement” is more appropriate. Further, because the word “synchronizing” is used in both parties’ constructions, there appears to be no dispute as to the plain meaning of this term. The remainder of the parties’ constructions are rejected for the reasons stated above in regards to the “detecting change over” term.

The Court hereby construes **“detecting the change over”** to mean **“detecting the still image change.”** As noted above, the constituent term “still image” is a distinct term that is discussed separately in this Memorandum Opinion and Order.

The Court hereby construes **“automatically synchronizing change over from one [electronic] still image to another”** to mean **“synchronizing the still image change from one [electronic] still image to another without user involvement.”** As noted above, the constituent term “still image” is a distinct term that is discussed separately in this Memorandum Opinion and Order.

F. “visual aid”

<u>Disputed Terms</u>	<u>Plaintiff’s Proposed Construction</u>²	<u>Defendant’s Proposed Construction</u>
“visual aid(s)” ('898 patent, claims 26, 38; '070 patent, claim 1)	No construction is required. Alternatively, “something an individual looks at (such as a slide, photograph, graph, discrete motion picture clip, or text) that is used to make something easier to understand”	“two or more images, at least one of which is a slide, photograph, graph, discrete motion picture clip, or text, and the other is of a different type (slide, photograph, graph, discrete motion picture clip, or text).”

The disputed term “visual aid(s)” appears in claims in both the ‘898 patent and ‘070 patent.

(1) The Parties’ Positions

Plaintiff submits that the “visual aid” term does not require construction and should be afforded its plain and ordinary meaning. (Dkt. No. 47 at 1, 19.) Plaintiff argues that Defendant’s construction would require two or more images regardless of whether visual aid is used in the singular or plural. (*Id.*) Plaintiff argues that the ‘898 patent only suggests that at least two of the “visual aids” are selected from a group of possible types of visual aids, not that a “visual aid” is always two or more. (*Id.*) Plaintiff argues that Defendant is trying to avoid liability by excluding situations where a single visual aid is used at a live conference capture event. (*Id.*)

Defendant responds that the use of the term “visual aid” in the claims is in a standard Markush group format, but the words photograph, graph, and discrete motion picture clips do not appear in the ‘228 patent specification. (Dkt. No. 50 at 26.) Defendant argues that the claim

² During the Markman hearing, Plaintiff proposed a new construction for the “visual aid” term to mean “an item of illustrative matter designed to supplement written or spoken information so that it can be understood more easily.”

language requires at least two visual aids be selected from the group of images as recited in the claim. (*Id.*) This means that selecting two slides would not satisfy the claim limitation but that a single slide and a photograph would satisfy the claim limitation. (*Id.*) Defendant also argues that the claims including the term “visual aid” are invalid because there is no support in the ‘228 patent for this term or for the terms recited in the claimed Markush group (slide, photograph, graph, discrete motion picture clip, or text). (*Id.* at 26-27.) Defendant also argues that the recitation of a “group of images” in claims 26 and 28 of the ‘868 patent and claim 1 of the ‘070 patent is insolubly ambiguous and nonsensical and is thus indefinite, as text and a discrete video clip are clearly not images. (*Id.*)

(2) Analysis

The parties do not dispute the ordinary meaning of the term “visual aid,” but they do dispute whether the claims require a “visual aid” to mean something other than its ordinary meaning. The Court finds that it does not, and that “visual aid” has its plain meaning.

Claim 26 of the ‘898 patent and claim 1 of the ‘070 patent include the “visual aid” term and are shown below (in relevant part):

[claim 26 ...] capturing media assets of live presentations comprising a session, the media assets including 1) image data of *a plurality of sequentially presented **visual aids*** accompanying the live presentations and 2) audio data, *wherein at least two of the visual aids are selected from the group of images consisting of slides, photographs, graphs, discrete motion picture clips, and text*, and wherein the capturing includes real-time 1) image data marking of the image data for identification of individual images and 2) session marking of the image data for demarcation of individual presentations of the session;

[claim 1 ...] at least two capture devices configured to capture media assets of live presentations comprising a session, the media assets including 1) image data of *a plurality of sequentially presented **visual aids*** accompanying the live presentations, 2) audio data, and 3) video data of a presenter of the corresponding live presentation, *wherein at least two of the visual aids are selected from the group of images consisting of slides, photographs, graphs, discrete motion picture*

clips, and text, and wherein each capture device includes an interface that enables real-time 1) image data marking of the image data for identification of individual images and 2) session marking of the image data for demarcation of individual presentations of the session;

(emphasis added.) Both claims refer to the “visual aid” in the same manner.

Rather than focusing on the inherent meaning of the disputed term “visual aid(s)” itself, the parties largely focus on the surrounding claim language. Based on the express language of the claims, the claims expressly require a plurality of sequentially presented visual aids, such that at least two of the visual aids are selected from the group of images consisting of slides, photographs, graphs, discrete motion picture clips, and text. There is no need to include these separate claim limitations into the disputed term itself. *See Merck & Co. v. Teva Pharm. USA, Inc.*, 395 F.3d 1364, 1372 (Fed. Cir. 2005) (“A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so.”). Thus, the Court rejects the parties’ proposals to the extent they are superfluous with and/or inconsistent to the actual claim language surrounding the term “visual aid(s)” and an attempt to construe the language surrounding the disputed term as opposed to the disputed term itself.

In the parties’ briefing, the parties argue whether the claim requires two separate types of visual aids as opposed to merely two visual aids of the same type. As this dispute involves separate limitations in the claim and does not relate to the inherent meaning of the “visual aid” term itself, this dispute does not affect the Court’s construction as to this term, particularly as it is only used in its plain and ordinary meaning. Nevertheless, the Court rejects Defendant’s arguments on this issue as being contrary to the express language of the claims. The claims require only that two of the plurality of visual aids are selected from the recited group, not that the visual aids must comprise at least two different members from the recited group. (*See* claim

26 of the ‘898 patent and claim 1 of the ‘070 patent.) The Court also rejects Defendant’s argument that the separately recited “group of images” phrase in these claims renders the disputed term “visual aid(s)” insolubly ambiguous. (Dkt. No. 50 at 27.)

Neither side has demonstrated that “visual aid(s)” is not being used in accordance with its ordinary, readily-understandable meaning. In addition to including limitations found in other parts of the claim as opposed to the disputed term itself, both sides’ proposals would introduce potential confusion as to this term. Because construing the terms will only tend to confuse rather than clarify, and the Court is not convinced that the parties’ construction are more helpful to the jury as opposed to the plain meaning, “visual aid(s)” requires no further construction. *See U.S. Surgical*, 103 F.3d at 1568 (“Claim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims, for use in the determination of infringement. It is not an obligatory exercise in redundancy.”); *see also O2 Micro*, 521 F.3d at 1362 (“[D]istrict courts are not (and should not be) required to construe every limitation present in a patent’s asserted claims.”) (*citing U.S. Surgical*, 103 F.3d at 1568).

The Court hereby construes “**visual aid(s)**” to have its **plain meaning**.

G. “image data marking(s)” and “session marking(s)”

<u>Disputed Terms</u>	<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
“image data marking(s)” ('898 patent, claims 26, 38; '070 patent, claim 1)	No construction is required. Alternatively, “a symbol used to identify an image”	“a symbol(s) or other device used to distinguish image data from other items (i.e. a session)”

“session marking(s)” (‘898 patent, claim 26; ‘070 patent, claim 1)	No construction is required. Alternatively, “a symbol used to identify a session”	“a symbol(s) or other device used to distinguish a session from other items (i.e. image data)”
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The disputed terms “image data marking(s)” and “session marking(s)” appear in claims in both the ‘898 and ‘070 patents. Because these terms are related and have similar proposals and arguments by the parties, the Court will consider these terms together.

(1) The Parties’ Positions

Plaintiff submits that the “image data marking(s)” and “session marking(s)” terms do not require construction and should be afforded their plain and ordinary meaning. (Dkt. No. 47 at 1, 20.) Plaintiff argues that the language proposed by Defendant has no support from the claims, specification, or prosecution history and is vague, ambiguous, and confusing. (*Id.*)

Defendant responds that the ‘228 patent does not describe “markings” of any kind, nor specifically “session markings” or “image data markings.” (Dkt. No. 50 at 22.) Defendant argues that the parties agree that markings may be a symbol, but that Plaintiff’s proposal of “used to identify” is too broad as opposed to the more limited nature of “marking” and contrasts that term and its meaning to a generic “identifier.” (*Id.*) Because the claims separately require the terms of identification and demarcation, to interpret “markings” as any identifier as requested by Plaintiff would give no effect to the applicant’s decision to use these different words differently. (*Id.* at 23.) Defendant argues that the declaration of Dr. Kevin Almeroth and the dictionary definition of markings in the Microsoft Computer dictionary support its proposal. (*Id.*) Defendant argues that a marker distinguishes two items while an identifier, alone, does not necessarily distinguish marked items. (*Id.* at 23-24.) Defendant also argues that if the terms are

not construed or if they are construed as broadly as Plaintiff wishes, that the claims reciting the “marking” limitation are invalid as lacking written description and indefinite as being ambiguous. (*Id.* at 24.)

(2) Analysis

The dispute here is to the meaning of the term “marking,” which appears in both the “image data marking(s)” term and the “session marking(s)” term. Both parties attempt to provide the term its plain meaning by using different phrases. However, during the Markman hearing, the parties agreed to constructions for these terms. In particular, Plaintiff agreed to substitute Defendant’s use of the term “distinguish” in its proposed construction, and Defendant agreed to remove the phrases “or other device” and “from other items ...” from its proposed construction.

The Court (consistent with the parties’ agreed upon construction) hereby construes **“image data marking(s)”** to mean **“a symbol used to distinguish image data.”** As noted above, the constituent term “image data” is a distinct disputed term discussed separately in this Memorandum Opinion and Order.

The Court (consistent with the parties’ agreed upon construction) hereby construes **“session marking(s)”** to mean **“a symbol used to distinguish a session.”** As noted above, the constituent term “session” is a distinct term that was separately agreed upon by the parties.

H. Means-Plus-Function Limitations

Introduction to Dispute

Claims 2-5, 9, 10, 13, 17, 21, 24, 29, 30, and 31 of the ‘070 patent all include means-plus-function limitations in the claims. Many of these claims include means-plus-function limitations that appear to not be in dispute, and therefore will not be addressed by the Court.

However, three of the means-plus-function limitations are disputed, and the parties’ competing proposals are listed below. The parties do not appear to dispute whether these limitations are indeed means-plus-function limitations. While it is unclear if the recited functions for these terms are disputed, it is clear that the parties dispute the corresponding structures.

1. “Means for recording audio and video of the presenter during a live presentation”

<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
<u>Function:</u> <i>Not expressly provided.</i>	<u>Function:</u> <i>Not expressly provided.</i>
<u>Structure:</u> <i>Not expressly provided.</i>	<u>Structure:</u> Invalid/Indefinite, because the ‘228 patent specification does not describe any structure that corresponds to the recited function.

The disputed means-plus-function limitation of “means for recording audio and video of the presenter during a live presentation” is found in claim 2 of the ‘070 patent.

(1) The Parties’ Positions

The parties provide little argument for this term. Neither party expressly provides the recited function. In general, Defendant argues that this means-plus-function limitation is indefinite because there is no corresponding structure found in the ‘228 patent for the “means for recording audio and video of the presenter during a live presentation” limitation recited in claim 2 of the ‘070 patent. (Dkt. No. 50 at 30.) Defendant argues that while the ‘228 patent discloses recording audio and lecture materials, there is absolutely no disclosure of recording video of a presenter as claimed. (*Id.*) Thus, there is no structure or support for this means-plus-function limitation, rendering it invalid. (*Id.*)

In its reply, the Plaintiff argues that the “video of the presenter” language found in this means-plus-function limitation has supporting structure. (Dkt. No. 54 at 9-10.) While Plaintiff

does not provide any specific references to any corresponding structure for this term, it generically states that Defendant's arguments are problematic because Defendant spent "almost 7 pages" in its Response detailing the so-called "video embodiment." (*Id.* at 10.) Plaintiff does not expressly provide the recited function. (*See id.*)

(2) Analysis

Claim 2 of the '070 patent includes the disputed means-plus-function limitations, and is shown below:

An apparatus for capturing a live presentation, comprising:

means for capturing, as a plurality of still images, visual presentation materials displayed by a presenter during a live presentation;

means for recording audio and video of the presenter during a live presentation;

means for automatically synchronizing the recorded audio and video with the captured visual presentation materials;

means for storing the synchronized recorded audio and video and captured visual presentation materials in a database.

(emphasis added.) There appears to be no dispute that this term is a means-plus-function limitation governed by 35 U.S.C. 112, ¶ 6. Further, there appears to be no dispute as to the recited function. Thus, the Court finds that the recited function is (as expressly recited in the claim) "recording audio and video of the presenter during a live presentation."

While the '228 patent references recording audio and lecture materials, there is no disclosure of recording video of a presenter. Nor has the Plaintiff pointed to any such disclosure. At best, during the Markman hearing Plaintiff pointed to Figure 5 of the '228 patent, which shows a back panel of the integrated 35-mm slide projector unit with video in and out ports.

(*See, e.g.*, col. 7, ll. 47-53.) However, this has nothing to do with the recited function of recording video of the presenter.

While there may or may not be corresponding structure in the ‘070 patent for this means-plus-function limitation (there is additional disclosure in the ‘070 patent), because the parties have not advanced any arguments on this point and Plaintiff is attempting to rely solely on the ‘228 patent for the corresponding structure, the Court need not analyze the ‘070 patent.

Accordingly, the Court finds that there is no corresponding structure in the ‘228 patent that is “clearly linked” for the recited function, and as a result, claim 2 of the ‘070 patent is invalid under 35 U.S.C. 112, ¶ 2.

2. “Means for automatically synchronizing the recorded audio and video with the captured visual presentation materials”

<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
<u>Function:</u> <i>Not expressly provided.</i> <u>Structure:</u> <i>Not expressly provided.</i> Vague references to Abstract, col. 4, ll. 23-26; col. 7, ll. 11-15; col. 10, ll. 50-67; col. 11, ll. 3-5, col. 11, ll. 1-49; Fig. 10.	<u>Function:</u> <i>Not expressly provided.</i> <u>Structure:</u> Invalid/Indefinite, because the ‘228 patent specification does not describe any structure that corresponds to the recited function.

The disputed means-plus-function limitation of “means for automatically synchronizing the recorded audio and video with the captured visual presentation materials” is found in claim 2 of the ‘070 patent.

(1) The Parties’ Positions

The parties provide little argument for this term. Neither party expressly provides the recited function. In general, Defendant argues that this means-plus-function limitation is indefinite because there is no corresponding structure found in the ‘228 patent for the “means for

automatically synchronizing the recorded audio and video with the captured visual presentation materials” limitation recited in claim 2 of the ‘070 patent. (Dkt. No. 50 at 29-30.) Defendant argues that the support must be more than a disclosure of the function itself and must explain how the software performs the function according to a specific algorithm. (*Id.*) While the specification has support on how to synchronize slides with audio, because the ‘228 patent fails to describe how the claimed software performs the required “automatic synchronizing” of audio and video with visual presentation materials, there is no corresponding structure and the claim is invalid. (*Id.*)

In its reply, Plaintiff provides many examples from the ‘228 patent that allegedly describe a structure for synchronization. (Dkt. No. 54 at 3-4, 9.) In particular, Plaintiff argues that the synchronization structures are found in the ‘228 patent in the Abstract, col. 4, ll. 23-26; col. 7, ll. 11-15; col. 10, ll. 50-67; col. 11, ll. 3-5, col. 11, ll. 1-49; Fig. 10. (*Id.*) This includes a database 318 in which audio, slide, and synchronization data is stored. (*Id.*) Plaintiff does not expressly provide the recited function. (*See id.*)

(2) Analysis

Claim 2 of the ‘070 patent includes the disputed means-plus-function limitations, and is shown below:

An apparatus for capturing a live presentation, comprising:

means for capturing, as a plurality of still images, visual presentation materials displayed by a presenter during a live presentation;

means for recording audio and video of the presenter during a live presentation;

means for automatically synchronizing the recorded audio and video with the captured visual presentation materials;

means for storing the synchronized recorded audio and video and captured visual presentation materials in a database.

(emphasis added.) There appears to be no dispute that this term is a means-plus-function limitation governed by 35 U.S.C. 112, ¶ 6. Further, there appears to be no dispute as to the recited function. Thus, the Court finds that the recited function is (as expressly recited in the claim) “automatically synchronizing the recorded audio and video with the captured visual presentation materials.”

In response to Defendant’s argument that there is no corresponding structure for this term, the Plaintiff identifies various structures in the ‘228 patent that it argues is a corresponding structure for this term. Plaintiff does not identify any structures in the ‘070 patent, so the Court will focus solely on the ‘228 patent.

The recited function requires automatically synchronizing the recorded audio and video with the captured visual presentation materials. While there is some disclosure in the ‘228 patent for synchronization and the ‘228 patent references recording audio and lecture materials, there is no disclosure of recording video of a presenter. Nor has Plaintiff pointed to any such disclosure. At best, during the Markman hearing Plaintiff pointed to Figure 5 of the ‘228 patent, which shows a back panel of the integrated 35-mm slide projector unit with video in and out ports. (*See, e.g.*, col. 7, ll. 47-53.) However, this has nothing to do with the recited function of synchronizing recorded audio and video with the captured visual presentation materials.

While there may or may not be corresponding structure in the ‘070 patent for this means-plus-function limitation (there is additional disclosure in the ‘070 patent regarding synchronization), because the parties have not advanced any arguments on this point and Plaintiff is attempting to rely solely on the ‘228 patent for the corresponding structure, the Court need not analyze the ‘070 patent.

Accordingly, the Court finds that there is no corresponding structure in the ‘228 patent that is “clearly linked” for the recited function, and as a result, claim 2 of the ‘070 patent is invalid under 35 U.S.C. 112, ¶ 2.

3. “Means for automatically synchronizing change over from one electronic still image to another with the audio recording”

<u>Plaintiff’s Proposed Construction</u>	<u>Defendant’s Proposed Construction</u>
<u>Function:</u> <i>Not expressly provided.</i>	<u>Function:</u> <i>Not expressly provided.</i>
<u>Structure:</u> Figure 9.	<u>Structure:</u> Invalid/Indefinite, because the ‘228 patent specification does not describe any structure that corresponds to the recited function.

The disputed means-plus-function limitation of “means for automatically synchronizing change over from one electronic still image to another with the audio recording” is found in claim 13 of the ‘070 patent.

(1) The Parties’ Positions

The parties provide little argument for this term. Neither party expressly provides the recited function. In general, like the above term, the Defendant argues that this means-plus-function limitation is indefinite because there is no corresponding structure found in the ‘228 patent for the “means for automatically synchronizing change over from one electronic still image to another with the audio recording” limitation recited in claim 13 of the ‘070 patent. (Dkt. No. 50 at 29-30.) Defendant argues that the support must be more than a disclosure of the function itself and must explain how the software performs the function according to a specific algorithm. (*Id.*) While the specification has support on how to synchronize slides with audio, because the ‘228 patent fails to describe how the claimed software performs the required

“automatic synchronizing” limitation, there is no corresponding structure and the claim is invalid. (*Id.*)

In its reply, Plaintiff provides many examples from the ‘228 patent that allegedly describe a structure for synchronization. (Dkt. No. 54 at 3-4, 9.) In particular, Plaintiff argues that the synchronization structures are found in the ‘228 patent in the Abstract, col. 4, ll. 23-26; col. 7, ll. 11-15; col. 10, ll. 50-67; col. 11, ll. 3-5, col. 11, ll. 1-49; Fig. 10. (*Id.*) This includes a database 318 in which audio, slide, and synchronization data is stored. (*Id.*) In particular as to this means-plus-function limitation, Plaintiff states that Figure 9 illustrates a user interface, which shows a “slide control” mechanism and a “play” button that can be pressed to synchronize change over from one electronic still image to another. (*Id.* at 9.) Plaintiff does not expressly provide the recited function. (*See id.*)

(2) Analysis

Claim 13 of the ‘070 patent includes the disputed means-plus-function limitation, and is shown below:

An apparatus for capturing a live presentation, comprising:

means for capturing during the live presentation electronic still image data, said image data also being used for displaying said still images by a display device which displays said still images for viewing by an audience;

means for recording the audio portion of a speaker's presentation during a live presentation; and

means for automatically synchronizing change over from one electronic still image to another with the audio recording.

(emphasis added). There appears to be no dispute that this term is a means-plus-function limitation governed by 35 U.S.C. 112, ¶ 6. Further, there appears to be no dispute as to the recited function. Thus, the Court finds that the recited function is (as expressly recited in the

claim) “automatically synchronizing change over from one electronic still image to another with the audio recording.”

In response to Defendant’s argument that there is no corresponding structure for this term, Plaintiff identifies various structures in the ‘228 patent that it argues is a corresponding structure for this term. Plaintiff does not identify any structures in the ‘070 patent, so the Court will focus solely on the ‘228 patent.

The ‘228 patent specification does not explicitly reference “automatic synchronization.” The term “automatic” is used in the context of a computer automatically recording slide changes, via an infrared slide controller and IR sensor, a wired slide controller, or an algorithm driven scheme. (*See* ‘228 patent, col. 5, ll. 49-53.) This disclosure relates to the detection of a slide change, the capturing of a slide image when changed, and the recording of a time of the slide change. (*See id.* at col. 5, l. 49 – col. 6, l. 6.) “While performing the audio and video capture, the computer 102 automatically detects slide changes (i.e., via the infrared slide device or an automatic sensing algorithm), and the slide change information is encoded with the audio and video data.” (*Id.* at col. 7, ll. 25-29.) While Plaintiff references various portions of the specification that include the word “synchronization,” the disclosure that is most relevant to the recited function is the following:

The digital images of the slides and the digital audio recordings are stored on the computer along with the time stamp information created by the timer on the computer to **synchronize** the slides and audio.

(‘228 patent, col. 4, ll. 23-26.) As a whole, the citations disclose that the slides and audio are synchronized by time stamp information created by a timer on a computer. It is clear that to perform the recited function, the computer must automatically record the slide change and record the time of the slide change with the audio and video data. As discussed above, the ‘228 patent

discloses that an infrared slide controller and IR sensor, a wired slide controller, or an algorithm driven scheme can automatically record and synchronize the time changes with time stamp information created by the timer on the computer. However, the ‘228 patent provides no detail, flow chart, formula, or prose for the algorithmic driven scheme to be considered as a corresponding structure. *See Finisar*, 523 F.3d at 1340-41.

The Court rejects Plaintiff’s arguments that the database 318 and Figure 9 are corresponding structures. The database 318 relates not to the automatic synchronization of captured video and audio but to the storing of such data. (*See, e.g.*, ‘228 patent, col. 10, l. 54 – col. 11, l. 5.) Likewise, Figure 9 is not corresponding structure but instead “shows an example of a front-end interface used to access the database information consistent with the present invention.” (‘228 patent, col. 3, ll. 51-53.) “The front-end interface provides a robust and platform-independent method of viewing the lecture content and performing searches of the lecture information.” (*Id.* at col. 10, ll. 31-33.) Contrary to Plaintiff’s assertion, this structure and disclosure has nothing to do with the recited function of “automatically synchronizing change over from one electronic still image to another with the audio recording.” Rather, this allows the user to view the lecture content and perform searches. (*See id.* at col. 10, ll. 30-49.)

While there may or may not be additional corresponding structure in the ‘070 patent for this means-plus-function limitation (there is additional disclosure in the ‘070 patent regarding synchronization), because the parties have not advanced any arguments on this point and Plaintiff is attempting to rely solely on the ‘228 patent for the corresponding structure, the Court need not analyze the ‘070 patent.

Accordingly, the Court finds that the ‘228 patent discloses the corresponding structure as **“a general-purpose computer programmed to encode time stamp information with the**


captured audio and still image data in response to detecting the change over from one still image to another by the use of an infrared slide controller or a wired slide controller.”

V. CONCLUSION

The Court adopts the above constructions set forth in this opinion for the disputed terms of the patents-in-suit. The parties are ordered that they may not refer, directly or indirectly, to each other’s claim construction positions in the presence of the jury. Likewise, the parties are ordered to refrain from mentioning any portion of this opinion, other than the actual definitions adopted by the Court, in the presence of the jury. Any reference to claim construction proceedings is limited to informing the jury of the definitions adopted by the Court.

Within thirty (30) days of the issuance of this Memorandum Opinion and Order, the parties are hereby ORDERED, in good faith, to mediate this case with the mediator agreed upon by the parties. As a part of such mediation, each party shall appear by counsel and by at least one corporate officer possessing sufficient authority and control to unilaterally make binding decisions for the corporation adequate to address any good faith offer or counteroffer of settlement that might arise during such mediation. Failure to do so shall be deemed by the Court as a failure to mediate in good faith and may subject that party to such sanctions as the Court deems appropriate.

So ORDERED and SIGNED this 2nd day of April, 2014.



RODNEY GILSTRAP
UNITED STATES DISTRICT JUDGE